

WHAT IS CLAIMED IS:

1. A sheet processing apparatus comprising:
  - sheet holding means for holding a plurality of supplied sheets in a stack;
  - 5 first sheet stacking means on which sheets that have been held by said sheet holding means or have passed through said sheet holding means without being held are stacked and subjected to a processing;
  - second sheet stacking means, provided downstream of said first sheet stacking means with respect to a sheet conveying direction, on which sheets are to be stacked;
  - 10 first sheet conveying means for conveying said sheets stacked on said first sheet stacking means to discharge the sheets to said second sheet stacking means; and
  - 15 second sheet conveying means for conveying said sheets stacked on said first sheet stacking means toward said second sheet stacking means;
  - 20 wherein after the sheets stacked on said first sheet stacking means are conveyed by said second sheet conveying means toward said second sheet stacking means by a predetermined amount, said first sheet conveying means conveys the sheets held by said sheet holding means and the sheets stacked on said first sheet stacking means simultaneously under a state in which a downstream edge of the sheet stacked
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on said first sheet stacking means protrudes in a downstream side beyond a downstream edge of the sheets held by said sheet holding means by a predetermined amount to thereby discharge the sheets  
5 stacked on said first sheet stacking means to said second sheet stacking means and to stack the sheets held by said sheet holding means onto said first sheet stacking means.

10           2. A sheet processing apparatus according to claim 1, wherein said second sheet conveying means is adapted to push a trailing edge, with respect to the sheet conveying direction, of the sheets stacked on said first sheet stacking means to thereby convey  
15 those sheets.

          3. A sheet processing apparatus according to claim 1 or 2, further comprising control means for controlling said second sheet conveying means in such  
20 a way that said second sheet conveying means conveys the sheets stacked on said first sheet stacking means until the downstream edge of those sheets protrude in the downstream side beyond the downstream edge of the sheets held by said sheet holding means by a  
25 predetermined amount.

          4. A sheet processing apparatus according to

claim 3, wherein said sheet holding means has a held  
sheet conveying portion for conveying said held  
sheets, and said control means controls sheet  
conveying speed of said held sheet conveying portion  
5 and sheet conveying speed of said first sheet  
conveying means in such a way as to make them equal.

5. A sheet processing apparatus according to  
claim 4, wherein said control means controls  
10 activation timing of said held sheet conveying  
portion and said first sheet conveying means in such  
a way that the sheet conveying speeds of them are  
made equal when the sheets are conveyed.

15 6. A sheet processing apparatus according to  
claim 3, wherein said control means controls sheet  
conveying speed of said first sheet conveying means  
and sheet conveying speed of said second sheet  
conveying speed in such a way as to make them equal.

20 7. A sheet processing apparatus according to  
claim 6, wherein said control means controls  
activation timing of said first sheet conveying means  
and said second sheet conveying means in such a way  
25 that the sheet conveying speeds of them are made  
equal when the sheets are conveyed.

8. An image forming apparatus comprising:  
image forming means for forming an image on a  
sheet; and

a sheet processing apparatus for performing a  
5 processing on a sheet on which an image has been  
formed by said image forming means;

wherein said sheet processing apparatus  
comprises a sheet processing apparatus according to  
any one of claims 1 to 3.

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9. An image forming apparatus comprising:  
image forming means for forming an image on a  
sheet;

a sheet processing apparatus according to claim  
15 1 or 2 for performing a processing on a sheet on  
which an image has been formed by said image forming  
means; and

control means for controlling said second sheet  
conveying means in such a way that said second sheet  
20 conveying means conveys the sheets stacked on said  
first sheet stacking means until the downstream edge  
of those sheets protrude in the downstream side  
beyond the downstream edge of the sheets held by said  
sheet holding means by a predetermined amount.

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10. An image forming apparatus according to  
claim 9, wherein said sheet holding means has a held

sheet conveying portion for conveying said held  
sheets, and said control means controls sheet  
conveying speed of said held sheet conveying portion  
and sheet conveying speed of said first sheet  
5 conveying means in such a way as to make them equal.

11. An image forming apparatus according to  
claim 10, wherein said control means controls  
activation timing of said held sheet conveying  
10 portion and said first sheet conveying means in such  
a way that the sheet conveying speeds of them are  
made equal when the sheets are conveyed.

12. An image forming apparatus according to  
15 claim 9, wherein said control means controls sheet  
conveying speed of said first sheet conveying means  
and sheet conveying speed of said second sheet  
conveying speed in such a way as to make them equal.

20 13. An image forming apparatus according to  
claim 12, wherein said control means controls  
activation timing of said first sheet conveying means  
and said second sheet conveying means in such a way  
that the sheet conveying speeds of them are made  
25 equal when the sheets are conveyed.